

REMARKS

Claims 66-124 were pending. Claims 67-89, 91, 92, 94-111 and 114-124 have been withdrawn from consideration. Moreover, Claims 66, 90, 93, 112 and 113 stand rejected. Applicants respectfully request reconsideration in view of the above amendments and the following remarks.

The drawings were objected to as failing to comply with 37 CFR §1.84(p)(5) as they do not include the reference number 33a mentioned in the description. In response to the objection, applicants are submitting herewith proposed drawing corrections to Figures 7 and 8 wherein reference number 33a is properly indicated. Moreover, in reviewing the application, applicants discovered errors in Figures 25 and 26 where reference number 43 was inadvertently left out of the figures. Accordingly, proposed corrections to Figures 25 and 26 are also enclosed for the Examiner's consideration. Applicants submit that the proposed drawing corrections should overcome the objections set forth in the Action.

Claims 66, 90, 93, and 113 were rejected under 35 USC. §112, second paragraph as being indefinite for failing to particular point out and distinctly claim the subject matter which applicants regard as the invention. Claims 66 and 113 have been amended to delete the phrase "the inner side of the latter" and to provide proper antecedent basis for the phrase "the sole side." Accordingly, applicants respectfully request that this rejection be withdrawn.

Claim 112 was rejected under 35 USC. §102(b) as being clearly anticipated by Strickland. Moreover, claims 66, 90, and 113 were rejected under 35 USC. §103(a) as being unpatentable over Haimerl in view of Strickland. Finally, claims 66, 90, 93, and 113 were rejected under 35 USC. § 103(a) as being unpatentable over Haimerl in view of either Hung or Akasaki. Applicants respectfully traverse these rejections.

The presently claimed invention is a novel sealed shoe and method for making the same. The sealed shoe comprises an upper which is constructed with an outer material having an inner side and an outer side wherein a waterproof functional layer at least partially lines the inner side of the outer material. The upper has an upper end region with an outer-material end region and a functional-layer end region which requires sealing to an outsole. The outsole is adhesively bonded to the upper end region by means of any suitable outsole cement. The claimed footwear further includes a reactive hot-melt adhesive applied to the functional-layer end region to bring about waterproofness

when the reactive hot-melt adhesive is in the fully reacted state. Claim 113 claims a process for producing such footwear.

At page 13, lines 15-34, of the present application, there is a detailed definition of what is meant by "reactive hot-melt adhesives." Specifically, it is stated that:

"Reactive hot-melt adhesives refer to adhesives which, before their activation, consist of relatively short molecule chains with an average molecular weight in the range from 3000 to 5000 g/mol, are non-adhesive and, after activating, possibly by heat, are brought into a state of reaction in which the relatively short molecule chains are crosslinked to form long molecule chains and thereby cure, doing so in moist atmosphere. During the reaction or curing time, they are adhesive. After the crosslinking curing, they cannot be re-activated. Full reaction leads to a three-dimensional crosslinking of the molecule chains, which makes the cured reactive hot-melt adhesive waterproof and leads to highly effective sealing. The three-dimensional crosslinking leads to particularly strong protection against penetration of water into the adhesive. This highly effective sealing and protection against the penetration of water are of great significance specifically in the region of the sole construction."

Thus, it is clear that according to the present invention, "reactive hot-melt adhesives" mean polymer adhesives which cannot be re-activated after crosslinking curing. Furthermore, at page 13, lines 9-14, of the application, it is stated that thermoplastics are materials which become adhesive by heating and cure by subsequent cooling and which can be brought back into an adhesive state by renewed heating. Thus, the claimed reactive hot-melt adhesives cannot be understood to be thermoplastic polymers. However, it is clear from the description that such thermoplastics can be added to the reactive hot-melt adhesives of the present invention.

Claim 112 is not anticipated by Strickland

The Examiner asserted that Strickland shows an outsole with a nonreacted hot-melt adhesive thereon. As discussed above, applicants submit

that according to the present invention, reactive hot-melt adhesives do not include thermoplastics. Applicants have carefully studied the disclosure of Strickland and submit that Strickland only discloses the use of thermoplastics. Accordingly, the §102 rejection should be withdrawn.

Claims 66, 90 and 113 are not unpatentable over Haimerl in view of Strickland

As noted above, Strickland discloses only the use of thermoplastics. Thus, the combination of Haimerl and Strickland cannot render obvious the claimed invention, which relies on the use of reactive hot-melt adhesives discussed above. Moreover, applicants submit that Haimerl does not disclose or suggest the use of the claimed reactive hot-melt adhesives to form waterproof footwear. Accordingly, applicants respectfully submit that this rejection should be withdrawn.

Claims 66, 90, 93, and 113 are not unpatentable over Haimerl in view of either Hung or Akasaki

Haimerl discloses a shoe with a waterproof lining which comprises a shaft connected to a marginal strip made of a material which does not conduct water. The marginal strip is attached to the insole. A seal is arranged between the marginal strip and the lining. The sole structure is not attached to the marginal strip. The seal is made of a sealing material which is introduced between the marginal strip and the waterproof lining independently on the sole structure. As can be seen, the Haimerl footwear construction is rather complicated in that it relies upon the use of the marginal strip to obtain waterproofness in the area of the lasting region. Furthermore, Haimerl fails to disclose or suggest the use of the claimed hot-melt adhesives.

Like Strickland, Akasaki discloses only the use of thermoplastic polymers. Thus, it cannot be concluded that the combination of Haimerl and Akasaki discloses or suggests the presently claimed invention.

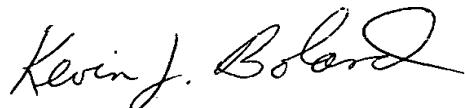
Hung discloses a specific foaming polyurethane reactive hot-melt adhesive and a process for making the same. Hung does disclose that foamed adhesives, including hot-melt compositions are well known in the art. Such applications involve the mixture of hot-melt thermoplastic adhesive and a blowing agent wherein a polymer/gas adhesive solution is formed and transmitted under pressure to and through a dispenser. Upon emerging from the nozzle of the dispenser into atmospheric pressure, the gas evolves from the solution in the

form of small bubbles causing the adhesive to expand volumetrically. The resultant adhesive in an uncompressed state sets up as a homogeneous solid foam having gas cells substantially evenly throughout the adhesive. Hung goes on to discuss that among the adhesives most commonly foamed in accordance with the methods described are, what has come to be known as reactive hot-melt. Reactive hot-melts are one component, 100% solid, solvent-free urethane prepolymers. Unlike conventional hot melts that can be repeatedly heated from its solid state and flows to a liquid form, the reactive hot-melt behaves as a thermoset and goes through an irreversible chemical reaction once dispensed in the presence of ambient moisture. Hung states generally that these reactive hot melts will bond to a variety of substrates including plastics, woods, fabrics and some metals making them ideal candidates for bonding dissimilar substrates. Hung also discloses that such reactive hot-melts are flexible and durable by nature while also providing excellent moisture and chemical resistance.

The disclosure in Hung that reactive hot-melt adhesives will bond to a variety of substrates is a very broad statement of fact which is certainly not new to a skilled artisan. Applicants submit that such a broad statement would not motivate one to combine the reactive hot-melts of Hung with the teaching of Haimerl. There is nothing in the prior art which would suggest to one skilled in the art that the claimed reactive hot-melt adhesives would be useful in the footwear constructions of Haimerl. Moreover, as noted above, the construction disclosed in Haimerl is a relatively complex structure which requires the attachment of a marginal strip to the shaft material of the footwear. The marginal strip already provides a waterproof seal. Thus, applicants fail to see how the skilled artisan would be motivated to apply the adhesive of Hung to obtain a property which is already present in Haimerl-specifically the waterproof seal at the lasting region. Accordingly, applicants respectfully submit that this rejection should be withdrawn.

As all of the outstanding objections and rejections have been addressed and overcome, applicants respectfully request a favorable action on the merits. Should the Examiner have any questions, the Examiner is invited to telephone applicants' undersigned representative.

Respectfully submitted,



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Enclosures: Copies of Figures 7, 8, 25 and 26 Marked-up in Red